

## CLAIMS

1. Hydraulic binder, containing cement as main constituent, to which a mixture of a chromate reducer and a carrier material is added, characterized in that the chromate reducer contains two iron(II) sulfate components, with the 1<sup>st</sup> component made of filter salt from the titanium dioxide production, and with the 2<sup>nd</sup> component being copperas, and a mineral acid regulator which is added to the chromate reducer.
2. Hydraulic binder according to claim 1, characterized in that the mineral acid regulator is added to the filter salt.
3. Hydraulic binder according to claim 1 or 2, characterized in that the mineral acid regulator is ground limestone.
4. Hydraulic binder according to one of the claims 1 to 3, characterized in that the mineral acid regulator is added at an amount between 3.0 weight-% and 18 weight-% in relation to the amount of filter salt.
5. Hydraulic binder according to one of the claims 1 to 4, characterized in that the 1<sup>st</sup> component and the 2<sup>nd</sup> component are mixed at a ratio of 1:1 to 1:5.
6. Hydraulic binder according to one of the claims 1 to 5, characterized in that a hydrophobic substance in the form of polymeric alcohols is added to the mixture.
7. Hydraulic binder according to claim 6, characterized in that the polymeric alcohols are made on the basis of plastic or cellulose, in granular or liquid form.

8. Hydraulic binder according to one of the claims 1 to 5, characterized in that a hydrophobic substance in the form of a siloxane is added to the mixture.
9. Hydraulic binder according to one of the claims 1 to 8, characterized in that the carrier material is a silica gel.
10. Hydraulic binder according to one of the claims 1 to 8, characterized in that the carrier material is activated alumina.
11. Hydraulic binder according to one of the claims 1 to 8, characterized in that the carrier material is dry sand at a particle size between 0.1 mm and 0.4 mm.
12. Hydraulic binder according to one of the claims 1 to 8, characterized in that the carrier material is a catalyst powder.
13. Hydraulic binder according to one of the claims 1 to 12, characterized in that the mixture contains carrier material at an amount between 5 weight-% and 15 weight-% in relation to the amount of chromate reducer.
14. Hydraulic binder according to one of the claims 1 to 13, characterized in that the mixture is added at an amount between 0.01 weight-% to 5.0 weight-%, in particular between 0.2 weight-% to 1 weight-% in relation to the cement quantity.
15. Chromate reducer on the basis of iron(II) sulfate, characterized by a mixture of two iron(II) sulfate components and an acid regulator, with the first iron(II) sulfate component being filter salt from the titanium dioxide production, and the second iron(II) sulfate component being copperas.

16. Chromate reducer according to claim 15, characterized in that the mineral acid regulator is ground limestone.
17. Chromate reducer according to claim 15 or 16, characterized in that the mineral acid regulator is added at an amount between 3 weight-% and 18 weight-%, in relation to the amount of filter salt.
18. Chromate reducer according to claim 15 to 17, characterized in that the 1<sup>st</sup> component and the 2<sup>nd</sup> components are mixed at a ratio of 1:1 to 1:5.
19. Use of a mixture of iron(II) sulfate in the form of filter salt from the titanium dioxide production, as well as iron(II) sulfate in the form of copperas and a mineral acid regulator as chromate reducer for reduction of water-soluble chromate contents in cement.